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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,331	11/12/2003	Amir Lehr	PDS-003C3	1996
39933 7590 05/21/2007 POWERDSINE LTD. C/O LANDONIP, INC 1700 DIAGONAL ROAD, SUITE 450 ALEXANDRIA, VA 22314-2866			EXAMINER DU, THUAN N	
			ART UNIT 2116	PAPER NUMBER
			MAIL DATE 05/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/712,331	Applicant(s) LEHR ET AL.	
	Examiner Thuan N. Du	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 118-130, 132-134, 136 and 138-157 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 118-130, 132-134, 136 and 138-157 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/18/07, 4/16/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment and Terminal Disclaimer (dated 3/18/07) and IDSs (dated 3/18/07 and 4/16/07).
2. Claims 131, 135 and 137 have been cancelled. Claims 140-157 are added. Claims 118-130, 132-134, 136 and 138-157 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 118-130, 132-134, 136 and 138-157 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole et al. [Cole], U.S. Patent No. 6,348,874 (submitted by applicant) in view of Balakrishnan et al. [Balakrishnan], U.S. Patent No. 6,795,321.
5. Regarding claim 118, Cole teaches a local area network comprising:
 - a LAN switch [col. 3, lines 19-21];
 - a plurality of local area network nodes (nodes 20) [Figs. 1-4];
 - a power supply subsystem (power supply 16) [Fig. 3] comprising current sensor (current limiting circuit) [col. 3, lines 60];

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a power management and control unit (voltage regulator 14, microprocessor 22, switching circuit 18) [Figs. 2,4]; and

communication cabling (30-34) connecting said plurality of nodes to said power supply subsystem and to said LAN switch [Figs. 1-4], said communication cabling providing data communication between said LAN switch and said plurality of local area network nodes [col. 2, lines 16-21];

said power supply subsystem being operative control of said power management and control unit to:

provide at least some power via the communication cabling to said plurality of local area network nodes [col. 2, lines 21-23; col. 3, lines 26-31, 45-49, 56-59];

monitor via said current sensor the current flow to each of said plurality of local area network nodes [col. 3, lines 60-63]; and

classifying, responsive to said monitored the current flow, each of said plurality of local area network nodes for which at least some power is provided via the communication cabling as alternatively one of over-current [col. 3, line 56 col. 4, line 4] and normal [when short circuits not detected].

Cole does not teach that the current limiting circuitry can sense the under-current condition.

Balakrishnan teaches a system for sensing current and voltage comprises a current sense circuit for monitoring current flow across a cable as alternatively one of over-current, under-current and normal [col. 4, lines 50-54].

It would have been obvious to one of ordinary skill in the art at the time of the invention to replace Cole's current limiting circuitry by low cost current sense circuit taught by Balakrishnan because it would increase the flexibility and reliability of the system by not only detecting the over-current condition but also detecting the under-current across the cable for increasing protection.

6. Regarding claims 119 and 120, Cole teaches a management workstation (other elements of the system which the power management and control unit reported to) in communication (via path 26) with said power management and control unit [Fig. 4; col. 4, lines 4-7].

7. Regarding claim 121, Cole teaches that the power management and control unit is further operative to report said classification for each local area network node of said plurality of local area network nodes for which at least some power is provided to said management workstation [col. 4, lines 4-7].

8. Regarding claims 122, 123 and 148, both Cole and Balakrishnan do not explicitly teach the termination of power to the node when under-current or over-current condition is detected. However, one of ordinary skill in the art would have recognized that upon a failure condition, it is obviously to terminate the provided power to a device for protection. Under-current and/or over-current is one of the failure conditions. Therefore, it would have been obvious to one of ordinary skill in the art to terminate the provided power to the node when under-current and/or over-current condition is detected for protection.

9. Regarding claim 124, Cole teaches that a total of current flow to said plurality of local area network nodes is monitored (the current flow across all the communication links is monitored) [col. 3, lines 64-67].

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10. Regarding claim 125, Cole teaches a management workstation (other elements of the system which the power management and control unit reported to) in communication (via path 26) with said power management and control unit, said power management and control unit is further operative to report said over-current of said monitored current flow to said management workstation [col. 4, lines 4-7].

11. Regarding claims 126 and 127, Cole teaches that the at least one of plurality of local area network nodes is operated in a full functionality mode.

12. Regarding claim 128, Cole teaches that the power supply subsystem and the LAN switch are located within a single hub [Figs. 3, 4].

13. Regarding claim 129, Cole teaches that the communication cabling connects said LAN switch to said plurality of nodes via said power supply subsystem [Figs. 3, 4].

14. Regarding claims 149-151, Balakrishnan teaches a threshold value used to monitoring the current flow [col. 4, lines 50-53]. However, Balakrishnan does not specify a specific threshold value. Therefore, one of ordinary skill in the art would have recognized that the threshold value is obviously adjustable depending on the load connected thereto.

15. Regarding claims 130, 132-134, 136, 138-147 and 152-157, they do not teach or further define over the limitations recited in the rejected claims above. Therefore, claims 130, 132-134, 136, 138-147 and 152-157 are also rejected as being unpatentable over Cole in view of Balakrishnan for the same reasons set forth in the rejected claims above.

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Response to Arguments

16. Applicant's arguments with respect to claims 118-130, 132-134, 136, 138 and 139 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (571) 272-3673. The examiner can normally be reached on Monday-Friday: 7:30 am - 4:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached at (571) 272-3676.

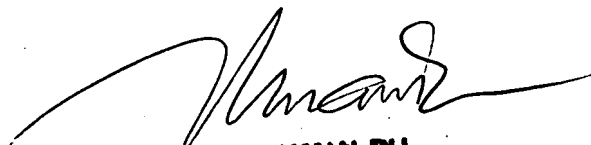
Central TC telephone number is (571) 272-2100.

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The fax number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

TD
May 14, 2007



THUAN N. DU
PRIMARY EXAMINER